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CLAIMS

1. A method of damping parasitic vibrations coming from the front axle assembly of a motor vehicle fitted 5 with electric power steering, using a power-steering electric motor (1) controlled by an electronic computer that delivers an electrical setpoint current, taking into account various parameters, from which the power current of the power-steering electric motor is 10 established, the damping method consisting essentially in:

- having available in the computer an electrical signal (ω) which possesses a component (ω_f) that is the image of the parasitic vibrations coming from the front 15 axle assembly of the vehicle;

- processing said signal (ω) so as to isolate its component (ω_f) that is the image of the parasitic vibrations;

- calculating, from the parasitic component (ω_f) 20 thus isolated, a correction current (I_c) for correcting the aforementioned setpoint current; and

- applying the calculated correction current (I_c) 25 to the setpoint current (I), determined by taking other parameters into account, in order to control the electric power-steering motor;

the electrical signal, used in the computer as signal "containing" the parasitic component, being an available signal relating to the electric power-steering motor, in particular the speed (ω) of the 30 electric power-steering motor.

2. The method as claimed in claim 1, characterized in that the processing of the aforementioned signal (ω), 35 for the purpose of isolating its component that is the image of the parasitic vibrations to be damped, is a filtering (F) that lets through the high-frequency component or components and that eliminates however,

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from this signal, the low-frequency component or components, especially those that are imposed by the driver of the vehicle in question.

5 3. The method as claimed in claim 1 or 2, characterized in that the calculation of the correction current (I_c), from the isolated parasitic component (ω_f), also takes into account at least one other parameter (V).

10 4. The method as claimed in claim 3, characterized in that said other parameter is the speed (V) of the vehicle.

15 5. The method as claimed in claim 3 or 4, characterized in that a parameter-assigned calculation of the correction current (I_c) is a multiplication by a variable "gain" (K), this being a function for example of the speed (V) of the vehicle.

20 6. A method as claimed in claim 3 or 4, characterized in that the parameter-assigned calculation of the correction current (I_c) is a calculation of the "transfer function" kind.

25 7. The method as claimed in any one of claims 1 to 6, characterized in that the final application of the calculated correction current to the setpoint current is a subtraction of the correction current (I_c) from the setpoint current (I) determined on the basis of other parameters, so as to deliver, as a result of this subtraction, the final setpoint current (I_t), which, when transformed into a control current (I_p), will control the electric power steering by correcting the 30 vibrations coming from the front axle assembly of the vehicle.